

Listing of Claims:

Please cancel claims 1-7, and add new claims 8-14 as follows:

1-7. (Canceled Herein)

8. (New) A method of reducing the amount of phosphorus in cow manure,
which comprises:

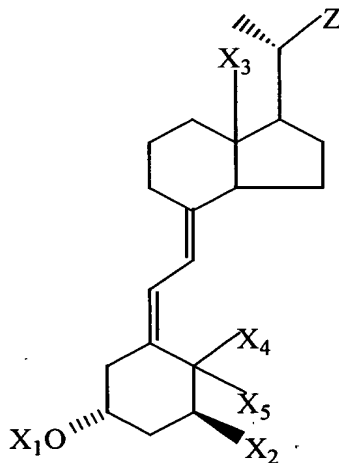
substituting a 1α -hydroxylated vitamin D compound for some or all of the
inorganic phosphorus in a diet of a cow; and
feeding said diet to said cow.

9. (New) The method of claim 8 wherein said diet includes a feed, and said
 1α -hydroxylated vitamin D compound is fed as a top dressing on said feed.

10. (New) The method of claim 8 wherein said effective amount of the 1α -
hydroxylated vitamin D compound comprises about $0.1\mu\text{g/kg}$ to about $100\mu\text{g/kg}$ of diet.

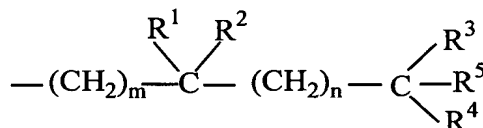
11. (New) The method of claim 8 wherein said diet includes a feed, and said
feed contains 0% by weight of an inorganic phosphorus supplement.

12. (New) The method of claim 8 wherein said 1α -hydroxylated vitamin D
compound is characterized by the following general structure:



where X_1 may be hydrogen or a hydroxy-protecting group, X_2 may be hydroxy, or
protected hydroxy, X_3 may be hydrogen or methyl, X_4 and X_5 each represent hydrogen or
taken together X_4 and X_5 represent a methylene group, and where Z is selected from Y,

-OY, -CH₂OY, -C≡CY and -CH=CHY, where the double bond may have the cis or trans stereochemical configuration, and where Y is selected from hydrogen, methyl, -CR₅O and a radical of the structure:



where m and n, independently, represent integers from 0 to 5, where R¹ is selected from hydrogen, hydroxy, protected-hydroxy, fluoro, trifluoromethyl, and C₁₋₅-alkyl, which may be straight chain or branched and, optionally, bear a hydroxy or protected-hydroxy substituent, and where each of R², R³ and R⁴, independently, is selected from hydrogen, fluoro, trifluoromethyl and C₁₋₅ alkyl, which may be straight-chain or branched, and optionally bear a hydroxy or protected-hydroxy substituent, and where R¹ and R², taken together, represent an oxo group, or an alkylidene group, =CR₂R₃, or the group -(CH₂)_p-, where p is an integer from 2 to 5, and where R³ and R⁴, taken together, represent an oxo group, or the group -(CH₂)_q-, where q is an integer from 2 to 5, and where R⁵ represents hydrogen, hydroxy, protected-hydroxy, or C₁₋₅ alkyl.

13. (New) The method of claim 8 wherein the vitamin D compound is 1α-hydroxyvitamin D₃.

14. (New) The method of claim 8 wherein the vitamin D compound is 1α,25-dihydroxyvitamin D₃.---